DOCUMENT RESUME

ED 310 999 SO 020 252

AUTHOR Chapman, Anne
TITLE The Difference It Makes: A Resource Book on Gender for Educators.
INSTITUTION National Association of Independent Schools, Boston, Mass.
REPORT NO ISBN-0-934338-69-8
PUB DATE 88
NOTE 75p.
AVAILABLE FROM National Association of Independent Schools, 75 Federal St., Boston, MA 02110 ($20.00; 20% discount on five or more copies).
PUB TYPE Books (010) -- Guides - Non-Classroom Use (055) -- Information Analyses (070)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Classroom Communication; Educational Environment; Elementary Secondary Education; Family (Sociological Unit); Family Attitudes; Family Environment; Females; *Language Usage; Males; Nonverbal Communication; *Sex Bias; *Sex Stereotypes; Sociolinguistics; Teacher Student Relationship; Textbook Bias; Work Environment

ABSTRACT

The recent flood of new information on structuring human experience along gender lines and on the female component of human experience has profound implications for education. The new scholarship shows that much of what people once assumed to be innate gender difference is in fact produced by adults' different behavior toward boys and girls, of which adults may themselves be unaware. It also shows that the demands on women and men in workplace and family differ greatly from what they were even a generation ago and that gender-stereotypic responses to these demands are detrimental to both men and women. Schools may be promoting gender-stereotypic thinking and behavior by the courses that are offered; the manner in which students are expected to behave and perform; how students are taught, counseled, and coached; and what personnel policies and compensations are offered. This volume summarizes recent reliable information on cognitive and affective differences between girls and boys and looks at the effects of school and schooling on them. More important, it suggests ways to see whether assumptions often taken for granted about men and women are appropriate and, where they are not, how to work toward change. A 48-item annotated bibliography is divided into reference and interdisciplinary works, academic subject areas, and nonacademic areas of school life. Lists of 38 publishers' catalogs and 6 audiovisual distributors' catalogs of materials on women and gender are included. (JB)

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THE DIFFERENCE IT MAKES

A Resource Book on Gender for Educators

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Anne Chapman

The Difference It Makes

A Resource Book on Gender for Educators

Anne Chapman

National Association of Independent Schools
18 Tremont Street
Boston, Massachusetts 02108

About the Author

Anne Chapman has been student, teacher, coach, administrator, trustee, faculty wife, and parent in independent schools, with experience in both single-sex and coeducational settings. Currently academic dean at Western Reserve Academy, in Hudson, Ohio, she is board member and cochair of the Council for Women in Independent Schools/Gender Studies Committee of the Independent Schools Association of the Central States and contributing editor of *Women's Studies Quarterly*. She has run workshops, lectured, and published widely on the educational implications of gender differences, on gender and school climate, women and leadership, and the integration of women into the curriculum.

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ISBN 0-934338-69-8

This book is dedicated to David and Barbara

Acknowledgments

I am grateful to Nancy Krineberg, at The Lawrence Hall of Science, Berkeley, California; John Guidubaldi, at Kent State University; Janie Victoria Ward, at Simmons College; and Joe Pleck, at Wheaton College, for bibliographic suggestions.

I thank Arlene Hogan, at The Hamlin School, in San Francisco; the curriculum committee at the Laurel School, in Cleveland; John Rorke, at Millbrook School, Millbrook, N.Y.; Wanda Speede-Franklin, former NAIS staff member; Albert Kalmar, at The Saint Louis Country Day School; Nancy Simon, at San Francisco Day School; and Christine Breuker and William Westfall, Western Reserve Academy, Hudson, Ohio, for reading the entire manuscript and making valuable suggestions.

The invaluable advice, support, and enthusiasm of these and other colleagues and friends have made this book possible.

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Introduction: Working toward Equity

"Who am I?" and "What can I become?" are questions all children and adolescents ask. The answers to these questions depend on what notions they absorb about being male and female in our society, which go beyond biological sex and depend on socially assigned gender.

During the most impressionable years of their lives, children spend thousands of hours in school. The messages they receive there about gender-appropriate attitudes and behavior strongly influence how they perceive themselves and the world and how well they are able to deal with that world.

New information on gender

The recent flood of new information on structuring human experience along gender lines and on the female component of human experience has profound implications for education. It offers new insights into history, literature, science, and art that have already had considerable impact on what is taught at the college level. These same insights need to become part of teachers' competence at the precollege level as well.

The new scholarship shows that much of what people once assumed to be innate gender difference is in fact produced by adults' different behavior toward boys and girls, of which adults may themselves be unaware. It also shows that the demands on women and men in workplace and family differ greatly from what they were even a generation ago and

that gender-stereotypic responses to these demands are detrimental to both men and women.

A young *woman* graduating from high school in the next several years will face

- The absolute certainty of encountering situations in which being aggressive and competitive is of advantage to her
- The virtual certainty of working for pay outside the home for nearly thirty years, on the average
- The virtual certainty of living alone for substantial periods of time
- A chance of being divorced that approaches 50-50
- The virtual certainty, if divorced with children, of being a single parent with custody of her offspring, and, if the custodial parent, of bearing major financial responsibility for herself and her children
- The strong probability of experiencing conflict between career and family obligations
- The strong probability of being called upon, in her work, to exercise skills and attitudes traditionally associated with men
- The strong possibility of being paid less than a comparably qualified man
- The strong possibility of being sexually harassed on the job
- The small but not insignificant possibility of earning more than her husband

Today's young *man* about to graduate from high school will face

- The absolute certainty of encountering situations in which being aggressive and competitive is damaging to him
- The virtual certainty of being married to a woman who works for pay outside the home during part of the marriage
- A chance of being divorced that approaches 50-50
- The strong probability of encountering conflict between career and family obligations

- The strong possibility of being called upon, in his work, to exercise skills and attitudes traditionally associated with women
- The strong possibility, if divorced with children, of having to contribute to the maintenance of two households or of becoming a single parent with sole custody of his children
- The small but not insignificant possibility of having a wife who earns more than he does
- The small but not insignificant possibility of being sexually harassed on the job

Gender stereotypes

Traditional gender stereotypes continue to be influential, even though they are at odds with the realities for which today's young people need to be prepared. We in schools, whether we realize it or not, may be continuing to promote gender-stereotypic thinking and behavior, in

- What courses we offer, texts we use, and issues we discuss
- How we expect students to behave and perform
- How we teach, counsel, and coach
- What compensation and personnel policies we offer
- How we allocate time and space
- How we approach student extracurricular and social life

Everything we do has an effect, but not always one we intended.

Planning for equity

This book summarizes recent reliable information on cognitive and affective differences between girls and boys—differences in how they think and feel—and it looks at the effects of school and schooling on them, with a glance at the influence of parents and the mass media. More important, it suggests ways to see whether assumptions often taken for granted about men and women are appropriate and, where they are not, how to work toward change.

We need, however, to remember the overlap between the sexes. It is easy to focus on differences and lose sight of similarities. Often there is as much (or more) difference *within* each gender group as *between* them—according to variables such as age, class, race, ethnic background, geographic location. We must always keep these influential variables in mind.

This book is for everyone connected with schools—trustees, heads of school, division heads, directors of studies, curriculum coordinators and planners, department heads, teachers, librarians, and parents. It can help schools work toward gender equity and make the most of individual potential through

- Curriculum and course development: subject matter, methodology, resources
- Classroom pedagogy: cooperative and competitive strategies, class discussions, effects of nonverbal behavior and different teaching styles on boys and girls
- Academic and personal counseling
- School climate
- Strategic planning
- Self-study reports required for accreditation

Being acquainted with the new scholarship on gender and on women can help schools reorganize in ways that make it easier for girls *and* boys to realize their potential and give them a wider range of choices, both in school and for their lives.

1.

Schools Make a Difference

Schools and teachers do make a difference, whether we mean to or not. We influence students by the kind of people we are, the ideas and values we hold, the language we use, the actions we take or avoid taking, what we require, encourage, discourage, or forbid, and what aspects of students' behavior we ignore.

We have all absorbed ideas about what is "gender-appropriate" from our upbringing and the culture around us. As a result, how we organize the school as an institution and how we get along with adults and students in the school community are affected by the often unexamined assumptions we hold about gender.

All aspects of the school's operation are potential carriers of gender-oriented messages, from admission interview to college recommendation, from course descriptions to faculty evaluation, from the portraits that hang in the dining hall to the roster of assembly speakers. Systematic review can reveal areas in which such messages are being sent and whether they should be continued, added to, changed, or eliminated.

The suggestions that follow are intended to help the school community examine major areas of school life with gender issues in mind, and they outline possible courses of action for change. In reviewing them, it should be remembered that, just as it is hard for fish to be aware of water, it is hard for us to notice the patterns of gender-related ideas that shape our thought. And even when we have become aware of gender-stereotypic thinking, counteracting it takes consistent, long-range effort.

Administration

Gender-related messages may be sent by the policies and practices of schools, as in the relative proportion of women to men as trustees; as teachers and administrators in different grade levels, seniority levels, and subject areas; as coaches, committee members, and department heads; as commencement and assembly speakers; and as nominees for and holders of awards.

Stereotypic gender differences may exist in compensation, benefits, or housing; eligibility and selection for sabbatical, summer study, or professional development programs; and travel to workshops and conferences (where child care may be an issue).

Gender-related messages often crop up in other areas as well. For example,

- Academic advisers and teachers may steer girls and boys toward traditionally "female" and "male" courses and career paths
- Scheduling may encourage gender stereotyping by putting what are expected to be male- and female-preferred courses in the same time slots (mechanical drawing and dance, AP physics and AP French)
- Timing of parent conferences may make it hard for fathers to attend, and communications with parents may neglect the noncustodial parent among the divorced
- The language used in school publications and in communications may still use "man" and "he," on the assumption that these terms are generic, yet actually be sending a message of exclusion
- Student service programs may be stereotyped, with girls cleaning classrooms and boys raking leaves

Messages like these are all elements of the school's "hidden curriculum." Many people say that far more powerful messages are conveyed through the school's culture than through its lesson plans. Others believe that the school's academic curriculum sends the most important message. Here are some ideas for a review of the "curriculum" both

in and out of the classroom: what and how we teach in academic courses, on the playing fields, in the dormitories, and through the school's culture.

Subject matter

By 1984, almost eighty colleges and universities were engaged in major official projects aimed at integrating the new research on women and gender into their curricula. Nearly half of all institutions of higher education were offering one or more women's studies courses, and 450 offered programs involving courses in several disciplines. Questions on women's experience now regularly appear in the advanced placement and achievement tests of the College Board.

This research has gone beyond simply adding information about women to shed new light on the experience of men. It is also giving us new perspectives on basic aspects of the curriculum, such as standards of excellence in art; periodization in history (division of history into various eras, such as the Middle Ages, the Renaissance, the Enlightenment); genres in literature; and choice, design, and interpretations of subjects for scientific research.

The following suggestions outline ways that results of the new scholarship may be incorporated into traditional courses.

Arts

Women artists are to be found throughout history. Some of their work was thought important by their contemporaries, and many of their creations have as much artistic merit as the work of their male counterparts. Their work in various genres and styles has been much studied recently. To include major female artists in chronological and stylistic surveys is now an easy step to take.

Another easy step is to study women as the subject matter of art. This raises questions about the kinds of images of women art has promoted, the role of art in making stereotypes, the relation between art and ideology, and the function of art as reflection and expression, or critique and transformer, of the wider culture.

Teachers who wish to go farther might explore with students the

process of becoming an artist and how differences in women's and men's experiences and opportunities have influenced their themes, styles, and the media and genres they worked in. The cultural stereotyping of the arts as being "feminine" can also be touched on.

These topics can lead to discussion of the importance of creative expressions traditionally associated with women, such as needlework, the bases on which some art forms are considered more significant than others, and the reasons for and effects of such rank ordering. Students could explore what the standards of artistic excellence are, how they are known, how and by whom they are set, whether they are universal, and in what ways they may be biased.

In performing arts courses—music, theater, dance—the same approaches apply: women in the field, the effects on women's creative work of their distinctive social role and status, and cultural and institutional constraints on their becoming professional or "great" artists.

Computers

Women risk losing out in the rapidly expanding field of computers. While both girls and boys from sixth grade on generally agree that computers are important to their future, want to take computer courses in college, and boys hardly outnumber girls in introductory classes, the more advanced the training the fewer the girls. In the 1985 advanced placement test in computer science, boys outnumbered girls five to one.

What needs to be counteracted is the stereotyping of computers themselves and their virtuoso "hackers" as "male"; their narrow association with mathematics, which reinforces the stereotype; fewer opportunities for informal access to computers by girls; and girls' less assertive approach to using them.

Some practical strategies that work are to

- House the computer center outside the mathematics department or decentralize computers altogether
- Teach Logo or Pilot instead of the more mathematically oriented BASIC

- Evaluate software for female as well as male student appeal and for gender stereotyping before buying
- Introduce word processing, which has more appeal for girls than programming courses
- Encourage out-of-class use by requiring computer homework, where feasible for all students
- Use a sign-up system to ensure access
- Limit game playing, which heavily attracts boys and tends to exclude girls
- Widen applications by encouraging use for art production, word processing, and record keeping for extracurricular activities
- Pair boys and girls and have them take turns at the keyboard
- Ask older girls to introduce computers in the lower grades or supervise out-of-class use
- Promote advanced computer training for girls as well as boys with parents

History

In history courses, students can be introduced to the results of the new research in two main ways. One is to add information about women and women's issues to traditional courses or to consider women's history separately but within a traditional framework. The other is to work with students to re-examine history using the new information, which calls into question basic assumptions about measures of historical significance and about the way history has been divided into periods.

Either way, students need to become aware of the difference between what the culture dictates about women's nature and proper role, on the one hand, and the realities of women's lives, on the other. A balance also needs to be struck between the diversity of women's experiences according to time, place, class, race, ethnicity, religion, age, and stage of life cycle, and the uniformities of their experiences as a group, shar-

ing as they do female socialization patterns, the potential for motherhood, and culturally decreed subordination to men.

Teachers can start by considering with students what women were doing at the time of events recounted in a textbook. Sometimes they were doing much the same thing as men: both sexes engaged in revolutionary activities in Paris of the 1790's, and in organizing trade unions in this country in the late nineteenth century. Or the same event may have affected them differently: during World War II men left and women moved into jobs.

Differences among women need also to be taken into account. Whereas industrialization brought many working class women out of the home and into factories, it generally shut middle class women into the home and away from work.

To make women more than marginal characters in the historical drama is not easy, for the script—the "periodization" of history and what is included in it—has been based on male experience and written to explain men's behavior according to measures of significance developed by men. The recent scholarship has shown that women's experience does not always fit into this script: unlike men, women did not have a Renaissance, and their experiences on the American frontier did not match those of men. Moreover, some historical changes of great importance for women have no parallels for men and no room in conventional periodization at all. One example is the achievement of women's control over their own fertility.

To deal with such issues, we need to take a new look at traditional course formats and content. Students can be led to consider bases on which decisions about historical significance are, can, and should be made; to grapple with the role of historians as change agents or preservers of the status quo; and to evaluate historical objectivity. Questions about women and gender arise in all three contexts.

Another way to bring women to the fore is through family history, which can introduce students to new historical scholarship and to new methods, such as oral history. Family history has strong student appeal, encourages community involvement, brings out both the diversity and

uniformity of women's experience, and makes comparisons between women and men conveniently possible.

Literature and communication

The new scholarship on women has focused on a critique of the predominantly male literary tradition and on the recovery of a lost tradition—and the birth of a new tradition—of women's literature.

As always, literature may be used with students to illuminate women's experience and to understand the lives of women of different times, cultures, backgrounds, and orientations. But some new issues are being raised about traditional literature and the concepts of women it presents: the limited array of roles in which women are depicted; how structure, content, and language may reflect and promote sexual inequality; the exclusion and marginal treatment of women in some genres; and misogynist stereotypes. Also being questioned is how closely literary pictures of women and their lives, feelings, and experiences agree with what we know to have been the reality of their lives at the time.

It is now possible for students to read, and read about, women writers of the past who actively influenced their contemporaries and descendants, who were trend setters rather than imitators, and who remain of significance to readers today.

Students can investigate the psychodynamics of women's creativity by asking about what helped or hindered women in becoming authors and relating women's writing to the social conditions of their time. They can look critically at the styles, themes, genres, and structures of women's writing by themselves and in comparison with the writing of men.

In literature and in their own speech and writing, teachers and students need to be aware of the implications of sexist language. Some language patterns that influence perception as well as behavior are

- Failure to make the inclusion of women explicit by the use of "she and he," "men and women"
- Use of parallel terms having different connotations more often derogatory to women: master/mistress, timid woman/cautious man

- Failure to use parallel terms: man/wife instead of husband/wife
- Implied messages: "Scientists neglect their wives"
- Following the convention of always placing males first whenever reference is made to people of both sexes

Such patterns and habits can be changed by using guidelines for nonsexist language that have been developed.

Mathematics

The reasons for girls' limited participation and lower rates of achievement in mathematics are complex. Some are discussed in Chapter 2. Programs to remedy the situation often combine several approaches; and these programs do work, with varying degrees of success. The following strategies are worth trying.

To provide role models and reduce perception of mathematics as a "masculine" field,

- Invite women mathematicians to visit classes
- Inform students about the work of outstanding women mathematicians
- Ask older girls in honors or advanced placement courses to talk about mathematics and to counsel or tutor younger students and those who are having difficulty with the subject
- Use word problems the subject and vocabulary of which include both genders

To increase students' confidence in their own mathematical ability and reduce anxiety that inhibits performance (this is helpful for boys, too),

- Provide opportunities for practicing problem-solving strategies like predicting, estimating, and testing hypotheses
- Reward students for interesting approaches to solutions even if they do not lead to right answers
- Ask questions that do not have only one right answer

- Allow ample time to interact with material without formal evaluation
- Give take-home tests
- Permit some tests to be retaken and reward improvement
- Hold open-ended oral conferences to evaluate progress some of the time instead of timed written tests
- Use hands-on activities, visual representations, and physical materials to build abstract concepts
- Teach relaxation techniques such as deep breathing and "rehearsing" future behaviors and their consequences

To build on girls' favorable response to cooperative classroom activities,

- Use group problem solving and collective brainstorming
- Experiment with peer teaching
- Look for opportunities for "jigsaw" assignments, where each member of a group is given part of the information needed to solve the problem assigned

Competitive classroom activities tend to work well for boys, cooperative ones for girls. Both have negative elements in coeducational classes, however; there, activities that are neither competitive nor cooperative work best for boys and girls together. (Several projects designed to improve girls' math performance involved all-girl classes but produced no evidence that gender segregation by and of itself was responsible for favorable results.)

Other techniques that contribute to girls' (and also boys') greater participation and achievement in mathematics are

- Promoting recreational math: brain teasers, spatial games
- Teaching about career opportunities in math-related fields
- Teaching about career fields where students may not realize that math is important

Schools

- Promoting parents' understanding of the importance of mathematics for daughters as well as sons

Science

Despite women's increased interest and participation in science, gender discrepancies persist, for several reasons.

Perception of science as "masculine" has been found among students as young as six years old, though recent research suggests that this stereotyping may by now apply only to the physical sciences, and more particularly to physics.

The number of girls taking advanced placement examinations in science is growing at more than twice the rate of boys. Yet, while almost the same number of boys and girls took the advanced placement examination in biology, more than twice as many boys as girls took the chemistry, and over four times as many boys the physics examination in 1985.

Between 1965 and 1985, the number of mathematics and science advanced placement examinations taken by girls increased ten times, while those taken by boys increased four times. During the same period, however, boys' mean scores on College Board achievement tests in physics, chemistry, and biology were consistently and substantially higher than those of girls. Gender differences in science enrollments persist into college.

Part of the explanation may lie in the difference in boys' and girls' informal exposure to science. An early 1980's national study involving extracurricular science experiences of nine-, thirteen-, and seventeen-year-olds showed that at age nine the desire of girls for scientific observation, skill in using scientific instruments, field trips, and experimental tasks often exceeded the national mean. Girls of thirteen and seventeen were at or above the national mean in their desire to visit all but one of the six field trip sites listed, yet fewer girls than boys had visited four out of the five they liked. The actual number of science-related experiences of boys exceeded those of girls in every category surveyed.

At a 1983 NAIS Council for Women in Independent Schools conference on girls and women in science and mathematics, teachers reported

that, starting in elementary school, girls were much less forceful than boys about being given their turn, being allowed to keep on working with equipment, and trying out ideas in class discussion. They tended more than boys to look for correct solutions, right answers, success in completing repetitious tasks, and clues of approval from teachers. They were afraid to take risks, be "wrong," "ruin" laboratory equipment, or submit "messy" lab notebooks. They asked for clarification, whereas the boys pressed to move on to new material.

Scheduling may discourage girls from taking science courses if they are taught at times that conflict with honors English, advanced French, or studio art courses.

High school girls are more likely to major in science when encouraged to do so by their teachers and academic counselors. Having a mother employed in a high-prestige occupation also encourages girls, but the concern that marriage and children are incompatible with a scientific career discourages them. Neither of these factors has much if any effect on boys.

Here are some specific strategies for increasing girls' participation and achievement in science.

- Informal science-related experiences for girls as well as boys, from an early age
- Equal access to and time with equipment
- Encouragement and reward of intellectual risk taking in science classes
- More "process" activities, without "right" or "wrong" answers
- Rewards for interesting approaches, not just for correct solutions
- Some interaction with materials without evaluation
- Women scientists talking about science, how they decided to enter the field, their work, and how they balance their personal and professional lives

Issues addressed by the new scholarship are important to science as a discipline and to women in science. They lend themselves to exploration in the classroom by students of different ages.

In the historical portion of science courses, teachers can use the growing amount of information about women scientists, their work, and the conditions that have helped or hindered them. For the twentieth century, we have statistics on women in the sciences and on their slowly increasing numbers. Also available are analyses of reasons for low numbers and slow gains: cultural stereotyping of science as a male occupation, women's formal and informal exclusion from professional training, barriers to informal contacts with male colleagues in the sciences, and lack of women scientists as role models, mentors, and controllers of funds, promotions, tenure, and awards.

Science courses offer opportunities to discuss certain controversial and basic issues. Much recent research has tried to establish which of the observed cognitive and affective differences between the sexes are biologically rather than culturally based. Some researchers, notably in the fields of endocrinology, cerebral lateralization, and sociobiology, have claimed scientific proof of biologically determined sex-linked differences in human nonsexual behavior such as performance on mathematical tests, aggression, and nurturance. Others dispute these findings. A unit on human physiology or genetics could easily include discussion of this issue.

One element of debates like this is the question whether science is or can be value-free. To what degree do the attitudes and preconceptions of scientists—and of those who fund scientific research—influence the kinds of questions that get asked? the methods used? the results obtained?

Such questions lead to others about the connections between science and society and the responsibility of scientists for the social consequences of their work, as in fields of research such as atomic energy and DNA. Teachers can also look with their students at the implications for the distribution of power within society of biologically determinist theories not only of sex but also of race.

Textbooks

Teachers and students can analyze a text for bias and, if they find it, work to counteract that bias.

In analyzing a text for bias, look for

- Absence, token representation, or isolation of a group or groups: a separate section on women, minorities only in drawings and photographs
- Language: "he" or "man" rather than "they" or "people"; stereotyping adjectives—"pretty girls," "adventurous boys," "inscrutable Orientals," "treacherous natives," "backward poor"
- Other stereotyping: word problems in math that measure lumber and the velocity of bullets but never flour or babies' temperatures; discussion of Gibson girls but not women's suffrage in a history book
- Publication date: textbooks first published in the 1960's are still being reprinted; recently revised editions of these books, even if published within the last few years, are more likely to be biased than new books published around the same time

Some ways of counteracting bias in textbooks are to

- Use the textbook as a primary source and have students analyze it for what it reveals about the attitudes of its author and the society it was produced in
- In class, discuss bias and reasons for it; examine information that is distorted; provide information that is missing from the text
- Provide documents and statistics that shed different light on the subject and help students appreciate different perspectives
- Assign supplementary materials

Classroom interaction

It is not known how extensively teachers treat boys and girls differently, but we do know that it happens and that very often it does a disservice to both sexes.

Teachers often expect boys to work more independently, ask them

higher-order questions, and criticize them more for misbehavior, even when they are acting no worse than girls. With girls, teachers' negative comments are fewer but tend to focus more on their academic and intellectual performance. Girls are more often shown how to do something or have it done for them, and teachers' questions to girls are less frequent and less probing.

The research done in classrooms suggests that more pressure is put on boys, but that more attention is also paid to them by teachers, who

- Call directly on boys more than girls
- Recognize boys more often when they volunteer in class
- Wait longer for a boy to answer or comment before turning to another student
- Provide more realistic feedback (including criticism) to boys and avoid criticizing girls' work
- Are more inattentive (shuffling papers, looking at notes, doodling) when girls speak
- Nod and gesture more in response to boys
- Respond more fully to boys' answers and comments
- Give more patronizing or impatient responses to girls
- Call boys but not girls by name
- Allow girls to be interrupted more by other students and physically "squeezed out" by boys in the laboratory, computer room, in demonstration projects, and on field trips
- Assume that assertive and direct boys are more knowledgeable than hesitant, polite, or shy girls
- Underestimate the competence of girls, especially minority girls
- Keep girls, and especially minority girls, more at a distance by ignoring, avoiding eye contact, not leaning toward them when speaking
- Get to know boys but not girls informally

Some teachers have been observed who use sexist humor, inappropriate kidding, or sexual innuendo.

Teachers who behave differently toward boys and girls often do so unintentionally; similarly, they may be unaware of gender-stereotypic behavior on the part of their students.

Those who want to monitor their own classrooms can start by making a checklist of gender-related student and teacher behaviors that are relevant to their situation. A videotape of a class, with the camera alternating between teacher and students, will highlight behavior they might wish to change, especially when played back with checklist in hand. Later tapes can be made to monitor change and growth.

Some ways to bring about change in students' stereotypic classroom behavior are to

- Restrain students who dominate discussion by not allowing interruptions, limiting the time a person may hold the floor, or limiting the number of times a person may speak
- Coach those who speak in a hesitant way, with too many qualifications and hedgings, by taping their comments and having them rework their wording, then practicing, on tape, a more assertive delivery
- In coeducational settings, let both boys and girls find out how it feels to be the only boy or girl, or one of only a few, in discussion and other groups
- Make sure that both girls and boys act as speaker and audience in both male- and female-style conversation by having girls ask challenging questions and boys sustain discussion with noninterruptive comment
- Encourage cross-gender play
- Talk about voluntary segregation by sex and gender-based differences in speech style and pattern by asking students for possible reasons and then discussing the reasons, the desirability of the behaviors, and possible change

- Make sure that classroom activities include both cooperative and competitive styles

Athletics

Gender stereotyping in athletics works to the disadvantage of both sexes. Boys are expected to excel in and be committed to competitive athletics. Sometimes they may be forced to participate, and, if they are of low or average ability, they may be overlooked or ridiculed. Athletic expectations and pressures are particularly burdensome for black males.

Girls are encouraged less to take part in athletic competition and team sports or may even be discouraged from doing so. Their accomplishments may be taken less seriously. Those who do participate may be labeled "tomboy" or "girl jock," and those who excel may have their femininity questioned. Even so, the numbers of girls in athletics have increased dramatically—36 percent of all high school athletes in 1981, as compared to 7 percent in 1972.

Gender disparities that contribute to stereotyped notions may exist in number of sports offered, contests scheduled, or coaches assigned; allocation of funds and practice time; publicity, awards, and attendance; and support given to teams. For instance, does an organized group of boys support gymnastics the way girl cheerleaders support the football team?

A recent study revealed that about half of both male and female high school students believed that their physical education teachers expected more from boys than from girls. Teachers were in fact found to apply higher performance standards to boys. Teachers interacted more with boys than girls in fifty coeducational physical education classes observed in grades 1-12, where they overwhelmingly selected boys as class leaders and demonstrators.

Coeducational physical education classes were found to work better for girls than single-sex sessions; there was no difference for boys. The girls said they felt that their skills had improved more, though half spoke of less confidence and displeasure with jeering, belittling comments from boys in the mixed classes. Direct intervention by teachers when sexist comments were made was found to reduce their incidence.

Schools should consider providing noncompetitive athletics—climbing, hiking, and yoga—as well as highly competitive individual and team sports for both boys and girls. Participation of either kind should be valued.

School climate

Every institution or community has its own climate: how its members organize, govern themselves, and get along with one another, and what unstated values and beliefs are operative. Following are some of the special elements of school climate, reviewed with gender in mind.

Discipline

However equitable its published discipline code may be, a school still needs to ask whether the ways discipline is actually handled are influenced by gender-stereotypic expectations. As unintentional as these may be, they are discriminatory and perpetuate the stereotypes.

For instance, are some faculty members prone to wink at boys' pranks and minor rule breaking because "boys will be boys"? Do male and female teachers have different standards in dress or neatness of rooms for students? Is there a different standard for girls as opposed to boys? Are different noise levels tolerated before action is taken, depending on which gender is making the noise? Are both sexes represented on the discipline committee? Are punishments gender-blind, or do girls tend to be let off lightly? Are punishments gender-stereotyped, with boys getting work detail and girls detention? With children of divorced parents, are noncustodial parents informed of disciplinary actions?

Dormitory living

Which dormitory building is assigned to girls, which to boys, in coeducational boarding schools may be an issue, due to real or imagined differences in the desirability of the buildings.

So may different dormitory rules for girls and boys: checking in and bedtime, keeping rooms and public areas clean, laundry and cooking facilities, degree of quiet to be maintained, parietals, and sports, recrea-

tional, or audiovisual equipment that may be kept or used in dorms. Even when parietal rules are the same for both sexes, because of gender-stereotypic expectations or attitudes boys and girls may have differing degrees of reluctance to take advantage of them, and those who do so may be labeled as promiscuous by other students, with chilling effects on school climate.

Sometimes girls are considered to need more supervision in dormitories because they are expected to seek help and advice more often and to be more prone to emotional problems than boys. And sometimes they are seen as needing less supervision, because they are expected to behave better and be less troublesome than boys. At issue may also be differences in the way male and female faculty members handle their dormitory supervising assignments and they way they respond in a boys' or a girls' dormitory.

Discussing these issues will highlight whatever differences may exist and help people decide whether the reasons for perpetuating these differences are desirable.

Counseling

Gender stereotyping in academic counseling is easily recognizable.

- Steering boys and girls into courses traditionally considered suitable for them: math and science for boys, humanities and the arts for girls
- Assuming that aiming for paid work is more important for boys than for girls
- Being more lenient with girls who want to drop hard courses than with boys
- Insisting that boys challenge themselves more than girls

In more personal and informal kinds of counseling that faculty members and administrators do, the issues are subtler. Expectations may become self-fulfilling: the self-sufficient boy and the clinging-vine girl may act out the roles we cast them in. We may overprotect girls, overpressure boys.

We may not see certain problems in girls, such as overcontrol and overconformity, because the girls are not causing any trouble. Similarly, we may fail to detect boys' problems, such as anxiety or feelings of isolation, because they are unwilling to share their fears. We may overemphasize students' developmental need to gain independence and autonomy and thus neglect their equally important need to learn about affiliation, personal attachment, and intimacy.

We may emphasize certain needs differently for boys than for girls. We may expect and reward conformity, compliance, and docility in girls, individuality, risk taking, and unsubmissiveness in boys. Or we may react inappropriately when girls display needs more often associated with boys, and vice versa.

Being aware of these kinds of pitfalls is the first step toward learning to avoid them.

Student organizations and leadership

In coeducational schools, gender stereotyping in membership and leadership of student organizations can be easily identified by tallying lists for the last several years. If it exists and if change is desired, several courses of action are possible.

- Meet with students to explore possible ways to change. Having the entire junior or senior class participate in a leadership workshop that includes gender issues is one idea. Another is to consider a boy and a girl as co-leaders.
- Informally counsel and encourage girls who want to run for office. "Token womanhood" should be avoided if at all possible, however: the only club out of twelve to have a female president, only two or three girls in an eighty-member computer club.
- Support informal recruitment efforts by bringing in speakers (preferably as part of a planned series, not on a one-shot basis) to talk about gender stereotyping in general and about women in leadership positions in particular.

Schools

Boys may fear ridicule or disapproval for supporting or voting for female candidates for leadership positions, for welcoming girls as members of previously male-dominated organizations, or for joining previously female-dominated groups. Thus boys also need encouragement and counseling in the overall effort to reduce the effects of gender stereotyping in student organizations.

Working toward change in this aspect of school life requires a consistent, sensitive approach that actively includes students.

Sexual harassment

Sexual harassment is not often recognized as an educational issue at the precollege level. But all the following are known to occur between students, between adults, and between adults and students in schools.

- Sexist statements, sexual innuendos, off-color jokes, salacious remarks, or obscene gestures
- Ogling or suggestively brushing against another person
- Indulging in name calling, sexual putdowns, and teasing
- Pressuring another person, in an unwelcome way, for dates or sexual favors

When such conduct has the effect of "substantially interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment," it constitutes sexual harassment under the Equal Employment Opportunity Commission's generally accepted 1980 legal guideline.

People subjected to such behavior—more often females than males, but by no means always—are to varying degrees bothered or upset by it. They feel angry, humiliated, helpless, intimidated, and resentful, especially if their complaints are met with derision, incomprehension, denial, or hostility: "What's the matter? Can't you take a joke?" "Are you gay or something?" "Just like a women to make such a big deal over nothing."

The person who is engaging in what is perceived as harassment may see it as goodnatured, even comradely, teasing, whereas the one being

harassed finds it distasteful, aggravating, or worse. Studies suggest that men, more than women, tend to regard only the most obvious behavior as sexual harassment, and they more often disagree that suggestive looks and sexual remarks fall into this category. They are also more than twice as likely as women to feel that the entire issue is exaggerated.

We have little evidence about the extent of sexual harassment in schools. At the college level, it is said that 20 to 30 percent of all female students experience some form of sexual harassment. At one independent school, 32 percent of female faculty members reported witnessing or experiencing some kind of harassment or overt gender bias of the harassment variety.

We have substantial evidence that sexual harassment is widespread in the workplace. A two-year government study of nearly 20,000 federal employees found that 42 percent of the women and 15 percent of the men had suffered sexual harassment, ranging from verbal harassment for a third of the women, unwelcome and uninvited sexual touching for over a quarter, to pressure for sexual favors for one in ten. Both sexes were more likely to be harassed if they were the minority among the people they worked with, and women if they worked in traditionally masculine fields. It is interesting that more than a quarter of both sexes agreed in calling something sexual harassment even if the person doing it did not mean to be offensive. Other studies broadly confirm these results.

While sexual harassment is an uncomfortable topic, it needs to be tackled, both for the sake of the school's climate and for the sake of gender equity. Measures taken could include workshops or discussions on

- How particular behaviors may be interpreted differently, with offense being given when none is intended
- How to speak out against harassment, seek resolution directly with the harasser, gain support from others
- Developing informal and formal procedures for handling cases that are identified

The school community as a whole could be alerted that

- Sexual harassment may indeed be taking place even though

unrecognized as such, dismissed as harmless or trivial, or glossed over as embarrassing

- Sexual harassment will not be tolerated
- Options for action exist for those who feel harassed, and what they are

It is important to recognize and make clear that both sexes may be harassed and that, though harassers are few, each tends to harass many.

2.

Tools of Thought: Language and Mathematics

How well students do in language and mathematics greatly affects their life in school, and gender is a part of it.

Girls have traditionally been thought innately superior to boys in language, and boys innately superior to girls in mathematics and visual/spatial abilities. Experimental evidence for gender differences in verbal, quantitative, and spatial abilities shows that results depend on the particular component of the ability being tested and that differences, when present, are quite often small.

Through research studies, environmental causes of these differences are being uncovered. So are ways to counter some of them.

Language: his and hers

The following compilation of general patterns of male and female language usage and communication is intended to help readers become more aware of differences and to allow for them in their teaching, dealings with colleagues, and other aspects of daily life.

Quirks of "gendered" language

Sexist aspects of the English language are semantic features that consistently, if unintentionally, exclude the other gender (fireman, housewife).

Such exclusion most often applies to women, as do usages that perpetuate stereotypes or are otherwise derogatory (governor/governess, wizard/witch, President Reagan/Mrs. Thatcher). Gender-neutral alternatives for them are available.

The generic male pronoun "he" does exclude. From preschool through college, students, especially males, are more likely to interpret the supposedly generic "man" and "he" as being specifically male than as including both men and women. Terms such as "people" and "they" produce higher rates of including women and reduce the difference between male and female responses. These terms do not work as well, however, as specific reference to both sexes: "his or hers," "she or he," "men and women."

Use of titles also produces differences in effect. In two studies, male high school and college students rated the same course as being potentially less intellectually stimulating and enjoyable when taught by a Miss or a Mrs. than when taught by a Ms., a Mr., or someone with no title.

Styles and patterns of communication

The speech of males and females is not the same, and the differences matter. While the following characteristics are not limited to one sex or the other, they are found predominately in males or in females.

Male speech patterns consistently show three major characteristics: monologues, arguing, and verbal posturing. Found among both children and adults, these patterns also cut across subcultures, including urban blacks, urban blue-collar whites, and rural whites.

The monologue is a way of asserting dominance by keeping center stage in the face of passive nonsupport (audience silence) or active challenge (hostile comments or putdowns).

Arguing, which may include shouting, name calling, insults, or threats, is a common feature of speech in all-male groups and can even occur over quite trivial issues. Such exchanges, not viewed as a sign of real conflict, are accepted as normal among friends and enjoyed.

With verbal posturing, men typically ignore comments of previous speakers and seek to control the topic, make strongly assertive statements,

indulge in competitive "devil's advocate" arguments, and cultivate an impersonal, abstract style with little self-disclosure.

White and black girls and women more often use inclusive pronouns and phrases ("Shouldn't we?") to reinforce a speaker with minimal comments ("Mmm," "Right") and nonverbal cues of attention (nodding), explicitly acknowledge what others say, and express conflict, competition, or influence indirectly.

Interruptions by women and girls typically ask for elaboration or clarification. They are not intended or perceived as attempts to take the floor from the speaker. Rather, their function is to sustain the speaker and keep the exchange going, with everyone in the group participating.

Women are more likely than men to use false starts, a questioning intonation when making statements, hesitant pacing, an excessive number of qualifiers, tag questions ("...isn't it?" "...don't you?"), and a more personal style, with considerable self-disclosure.

In conversations with the other sex, men and women may be at cross purposes because women see questions as conversational maintenance, whereas men see them as requests for information. Women interpret verbal aggression as personal, negative, and disruptive; men react positively to it. Men shift topics quickly; women develop and elaborate while shifting gradually.

The expectation that males will be competent influences their becoming leaders of conversation. When people expect women to be more competent, men no longer appear dominant.

Communication in the classroom

Although students of both sexes claim that the teacher's sex has no effect on their class participation, studies show that with male teachers men speak about three times as often as women, whereas in the classes of female teachers women speak only slightly less than men.

Women teachers generate more talk from all students. However, the very success of women teachers at eliciting student discussion can result in their being considered less competent. Students generally rate those

who lecture as having better command of their subject than those who lead the discussion.

The gender balance of the class also affects student participation. In a recent independent school study, nearly three quarters of the girls and over half the boys said they talked less in classes where they were significantly outnumbered by the other sex.

Women's higher rate of being interrupted has negative effects. Once interrupted, women sometimes stay out of class discussion for the rest of the period. This makes women one-time contributors far more often than men, which puts them at a disadvantage when contributions to class discussion count.

The style of class participation also counts. Teachers appear to value comments delivered in the "male style" more highly, regardless of the content.

Minority students' class participation is also affected by cultural factors. For example, Asian-American and Hispanic students, especially women, come from a cultural tradition of not speaking up and of being quiet and obedient. One study noted that black students prefer speaking out spontaneously in class to raising their hand and waiting to be called on. Being ignored or reprimanded for talking "out of turn" may extinguish their class participation.

Beyond language: nonverbal messages

Differences in male and female body language signal and perpetuate stereotypic roles.

Expansive postures are connected with dominance. Postures characteristic of men take up more space than those of women, except for postures of socially weak men, which resemble those of women.

Women are also given less space. People stand and sit closer to women than they do to men, at least among whites. One study, however, found that black female students' interaction with white classmates was at a much greater distance than that of black male students. This difference also depended on age: black males' interactions involving touch or physical contact with white classmates decreased from 63 percent in primary school to 53 percent in junior high school, where as black females'

went from 50 percent to zero. Avoidance (amounting to invisibility) of black women students in integrated schools has also been commented on anecdotally.

Touching is another form of communication that can denote dominance. Social superiority is sometimes connected with nonsexual touching (arm around shoulder, hand on upper arm). The person who does the touching is seen as the more dominant one, and the act of touching increases the power of the toucher and diminishes the power of the person touched. Males and females react differently to being touched. When the toucher is of obviously higher status, both males and females respond positively. When they are of equal or ambiguous status, women generally respond positively, whereas men react neutrally or negatively, especially if the toucher is female.

Eye contact, an important element of communication, is sometimes used as a signal of dominance. A steady stare and absence of eye contact, both characteristic of men, signal dominance. Women engage in more eye contact than men but also avert their eyes more. High-power men look at their partner about as much while speaking as when listening. Low-power men look more while listening than when speaking. The higher the proportion of looking while speaking to looking while listening, the more powerful the speaker is rated by others.

Women who are strongly control-oriented, have high status, or are deemed "experts" look at their partners about equally whether speaking or listening. Those with low control orientation, low status, and lacking expertise look significantly more while listening than when speaking. Moreover, those who do more looking while listening are rated by both mean and other women as less powerful.

It has been noted that, among black people, listeners avoid looking at the speaker, especially if the speaker is perceived as dominant. Puerto Ricans, Mexican Americans, and Japanese also have the pattern of looking down to show respect. There are also gender differences: looking at the speaker while listening occurs least frequently among black males and most frequently among white females. All of this has obvious implications for teachers who are apt to measure attentiveness or respect through eye contact.

Adding stereotypes, subtracting confidence = inequality in mathematics

Boys continue to do better than girls on mathematics tests. More females than males avoid or drop out of mathematics. Confidence in one's mathematical ability, the perceived usefulness of mathematics, and independence, generally accepted as major influences on achievement in mathematics, are more typical of boys than girls. Parents and teachers often do not feel that mathematics is as important for girls as for boys, and they expect less of girls. Mathematics is widely perceived as a "masculine" field, and within it there are few role models for girls.

Girls' math-related attitudes and behavior screen them out of those courses that lead to many of the highly paid traditionally "male" jobs. Lower female participation helps keep alive the occupational segregation of the sexes, contributes to keeping women's incomes down, and deprives society of potential contributions by women.

Although the exact nature of gender differences in mathematics is not fully known, the influence of some controllable factors has been well documented. Experimental projects have helped to increase girls' interest and confidence, reduce their negative attitudes, and improve their performance on quantitative and visual/spatial tests.

Finding the difference

In elementary school, girls and boys apparently perform equally well on mathematics tasks that are part of the regular school curriculum.

By junior high school, boys are more confident of their mathematical abilities than girls, and in high school they perform better than girls on tests of mathematical reasoning, though girls sometimes outperform them in computational skills. Male superiority on mathematics tests increases throughout high school, and with the level of difficulty of the material tested, even when the number of courses taken is constant.

Girls still take fewer mathematics courses than boys, but the gap is narrowing. While this does not account for gender differences in mathematical performance, it does affect performance on standardized tests.

Girls tend to rate their lack of ability and skill as a slightly more important cause of mathematics failure than boys do. Boys, just the opposite, rate their ability and skill as a slightly more important cause of their success in math than girls do.

There is some evidence of gender differences in math anxiety. This does not seem to have any direct effect on course plans, but it does affect students' confidence as to how well they will do in the course they take. Training has been shown to reduce math anxiety in both sexes.

Biological explanations of gender differences in mathematics continue to be pursued. None so far proposed have become established.

Spatial skills

Mathematics achievement seems to be related to spatial skills. The exact nature of the relation is unclear, however, and it varies from one branch of mathematics to another.

The measures of spatial ability on which males consistently outperform females involve judging horizontality and verticality and "mental rotations" that require matching two-dimensional representations of reoriented three-dimensional figures.

One researcher's work with preschool children suggests a "quantum leap in proficiency" in three-dimensional problem solving between the ages of three and four for both sexes, but more markedly for boys. Conscious training of both sexes, but especially girls, in manipulating and constructing three-dimensional forms is recommended at ages four and five. Cuisenaire rods provide one familiar approach.

Training in spatial ability does work, but the improvement seems to occur only on the specific test or skill trained for. No transfer or generalization of training effects has so far been established. Spatial abilities can be honed by certain kinds of kinesthetic experiences, however, such as woodworking, model making, using building toys, and, among older children, playing chess.

Teachers and peers

Some mathematics teachers interact more with boys in class, praise them

more, and give them more formal instruction, especially when they are highly able students. In high school, individual teachers who provide active encouragement and explicit advice on courses and careers can strongly influence girls' attitudes toward continuing in mathematics. Girls respond to this kind of encouragement more than boys do. Having a female role model in mathematics also has been shown to promote math achievement in girls.

Boys and girls have been found to react differently to teachers' classroom strategies. A recent study of thirty-six predominantly white midwestern fourth grade mathematics classes showed that competitive activities negatively affected girls' achievement on low-level tasks, such as computation. Cooperative activities had a positive effect that showed up more with low-level tasks than with higher-level work, such as problem solving and application. Cooperative activities negatively affected boys' high-level achievement. Engaging in mathematics activities that were neither competitive nor cooperative correlated positively, and consistently, with both boys' and girls' achievement on both low- and high-level mathematics problems.

Another finding of the same study was that teacher-permitted socializing in class did not affect girls' mathematics achievement, but it was a significant predictor of poor performance by boys.

The presence of a significant number of other girls in class has a positive effect on mathematics achievement in girls. There is no information about how boys' performance is affected by differing gender proportions in math class or by being taught by a woman rather than a man.

3.

Gender Stereotyping In and Out of School

The conventional stereotype of girls assumes that they are cooperative, passive, and dependent supporters—timid, emotional, artistic, highly verbal, and headed for the humanities, marriage, and children. Boys are stereotyped as competitive, active, independent learners—aggressive, intellectual, mechanically inclined, and oriented toward mathematics, science, and a career.

Research evidence does not consistently and uncontroversially support biologically based intellectual or personality gender differences. Even those who argue biological bases for gender differences in behavior concede that rearing, when it comes to gender identity, overrides biology. Whatever biological predispositions may exist, we do know that girls and boys are treated differently and that this treatment influences them toward conformity with the cultural stereotypes.

Children's commitment to gender-stereotypic attitudes and behaviors does not develop gradually and consistently until they reach adulthood. Instead, they begin to form these concepts between the ages of two and four. At these ages, children of both sexes in a 1978 study already believed that girls would clean the house when they grew up and that boys would be the boss and mow the lawn.

Through the early elementary grades, children become increasingly inflexible in gender-stereotyped attitudes and behavior. For a while

between the ages of eight and ten, they become more accepting of cross-gender behavior and less prone to stereotyping by gender, but from junior high on through high school they renew their commitment to gender stereotyping.

Males at all ages tend to be more committed to gender stereotypes than females, and boys are influenced in their commitment by their peers more than girls are.

Both girls and boys tend to ignore people whose behavior does not match their gender-stereotyped ideas. Similarly, they forget, or convert to conform with stereotypes, information that runs counter to these ideas: a picture of a boy cooking at a stove they will recall as a girl cooking, or as a boy fixing the stove. Errors in memory biased in favor of conformity with gender stereotypes have been found common from first grade to high school.

Adult intervention to counter stereotyped attitudes and behavior can work, but it needs to be consistent and sustained.

Learning the stereotypes

Gender-stereotypic attitudes and behavior are widely modeled for children, and generally rewarded, while cross-gender behavior is punished. Parents, teachers, peers, and the mass media reinforce and promote closeness and caretaking in girls, independence and physical activity in boys.

Parents

According to psychological theory that many accept, a significant reason why women and men develop different personalities is that women are the ones who care for babies. The theory claims that girls can and do identify with their mothers in a way impossible for boys, who have as a developmental task separation from their mother. As a result, denial of relation, connection, and femininity, as well as striving for independence, become characteristic of the male personality. Defining the self in relationship and connection, accompanied by concern for others' needs, come to characterize the female.

Differences in adults' behavior toward boys and girls start early and are related to gender stereotyping. Observational studies in the 1980's showed that sons are encouraged to play with blocks and are discouraged from playing with dolls and from asking for or offering help. Girls are encouraged to play with dolls, ask for and give help, and stay close to their parents; they are discouraged from manipulating objects, running, jumping, or climbing. In addition to behavioral differences in their treatment of daughters and sons, parents also differentiate by providing their daughters and sons with gender-stereotyped surroundings and toys.

Peers

Children's development of sex-role stereotypes is affected by their peers as well as their parents and other adults.

As early as three years of age, children tend to play in same-sex groups, where most of their peer socialization occurs. Girls tend to play indoors, in smaller groups spanning a narrower age range, and have exclusive friendships. In boys' larger, hierarchically organized groups with members of more various ages, experience is built by both leading and following.

Young children tend to regard another child positively when he or she engages in same-sex behavior and negatively if he or she does something that is typical of the other sex. Children tend to play with a particular toy more often if they have seen other children playing with it, especially if they are of the same sex.

Children generally are more willing to explore behaviors stereotypically associated with the other sex when they are alone. Negative reactions by children toward cross-sex behavior are more marked toward boys than toward girls, and boys seem more influenced by other boys. Negative reactions by male peers often take the form of taunting by name calling. In a 1981 study, creativity in a young male was what most likely would get him labeled "sissy."

Having few other children of the same sex in a classroom affects both boys and girls negatively in various ways. Most notably, it reduces self-confidence and willingness to participate.

Teachers

In addition to the classroom behaviors noted in Chapter 1, other actions of teachers may contribute to gender or cultural stereotyping as well.

Teachers of young children often spend more time with those who engage in female gender-typed activities, such as doll and kitchen play and art work. Their presence near any activity increases play there, but more for girls than for boys.

Teachers tend to introduce topics that are of interest to boys in mixed classes because girls are more attentive in the first place. If the girls do lose interest, they are more likely to be passive and less likely to be disruptive, which means that the teacher must try to keep the boys interested.

Teachers who have high expectations for particular students tend to treat them with more emotional warmth, react more animatedly to them, give them more opportunities to respond, more and more difficult material to absorb, and more attention overall. There is some evidence that teachers expect more academically of high-achieving students. This has clear implications for any group that a teacher may perceive as low-achieving, whether it be girls in mathematics classes, boys in reading, or black and Hispanic students in English.

Teachers can counteract stereotyping in the classroom. Gender-stereotyped attitudes from age three to college can be decreased by exposure to gender-fair educational materials and to nontraditional characters, especially when they are of the same sex. Male and female attitudes seem to be affected about equally, with some changed behavior. For example, both boys and girls develop less stereotypical attitudes about jobs and activities after reading about people who have successfully fought gender discrimination in nontraditional jobs. Even nursery school girls will keep on longer with tasks after having been read stories about nonstereotyped, achieving girls.

A series of preschool studies reported in 1985 showed that the structuring of classes also has an effect. At the preschool level, classes giving children much structure, showing them how and what to do, and emphasizing rules resulted in more compliance, dependence on adults, and attentiveness to group instruction. Less structured classes tended to elicit more student attempts at leadership, aggressiveness, independence,

and imaginative play. Given a choice, girls tended to opt for high structure, but could function in both situations, and changed in the same ways boys did in low-structure classrooms.

Textbooks and mass media

Gender-fair textbooks are still not easy to find. A great deal of work was done in the 1970's to document bias in every kind of textbook, from beginning readers to teacher-training texts in every discipline. This work has had significant influence, but the resulting balance-oriented revision of textbooks has been very gradual, very slow, and very patchy.

Although the late 1970's showed some improvement over the decade, both sexes were still being overwhelmingly depicted according to the cultural stereotypes on television and radio and in magazines, newspapers, children's books, and comics, as well as in textbooks. And children are affected by gender stereotyping in the media. Among elementary school children, for instance, heavy television viewers have more gender-typed preferences for toys and activities and are more limited in their proposed career plans than other children their age.

Acting out the stereotypes

One consistently observed gender difference is the greater aggressiveness and competitiveness of males. Evidence that this is culturally fostered, and indeed encouraged, is strong. Females' preference for cooperation, their lower self-image and confidence level, and the experiences that contribute to it, are also well documented. The differences, however, are not invariably found, and they are usually much greater between members of the same sex than between the sexes.

Aggression

Apparently adults, even unwittingly, encourage aggressiveness and disruptiveness in boys by rewarding it with attention and accepting it as culturally appropriate, from an early age: "Boys will be boys." High activity levels in boys are given positive feedback by boys', but not girls', peers among toddlers.

The mass media encourage violence in males by showing so many males in violent roles, while women are typically victims, bystanders, or unsuccessful at being violent. Same-sex role models depicted on film have a strong influence, especially for males. Longitudinal studies in the 1970's showed that the amount of television violence boys of nine saw was a strong predictor of how aggressive they would be by age nineteen. Girls, on the other hand, became increasingly negative toward violence the more they saw of it.

The greater socialization of males toward aggression and violent risk taking is likely to contribute to behaviors that are seriously to their disadvantage. More often than girls, boys have discipline problems in school. A 1982 national study of public, Catholic, and other private high school seniors showed that about twice as many boys as girls had been suspended for disciplinary reasons, and that four times as many boys as girls had been in serious trouble with the law.

Among teenagers, in 1980 and 1982 four times more boys than girls committed suicide, the white rate being twice that of the black. Boys died in accidents four times more often, had a five-times higher rate of drunk driving, and a six-times higher rate of drunkenness than girls. And boys committed sex offenses (excluding prostitution) almost fifteen times more often.

As adults, males engage in more violent behavior than females. In 1982, four times more men than women were found guilty of a killing, and nearly ten times as many committed violence against persons. For all categories of indictable offenses, more men than women are arrested and convicted.

Men are also two to three times more often the victim of violence than women. The only exception is rape, where women are victims five times more often than men—whose rate of being raped, incidentally, is *not* negligible. A man of any race is as likely to be raped as a white of either sex is to be arrested for robbery. Blacks and young people between the ages of sixteen and twenty-four are twice as likely to be assaulted, robbed, and raped as others.

Having lived differently, men also die differently, and sooner. In 1984, men's life expectancy was seven years less than women's. They

were twice as likely as women to die of heart disease (which is linked to the competitive, so-called type A personality) and of chronic liver disease—not surprising, since twice as many men as women drank five or more drinks at a sitting; 24 percent of all men fell into this category. Twice as many men as women smoked more than a pack of cigarettes a day, increasing their chances of lung cancer, three times as many smoked marijuana, and three times as many died in accidents and committed suicide.

Competition

Studies show that males value competition more, and are more competitive under all conditions, than females.

One massive study of white middle class midwestern students reported in 1983 that, in grades 2-4, only for boys did competitive attitudes correlate with positive attributes, such as personal worth and internal motivation. For both boys and girls at this age, however, competitive attitudes correlated with negative attributes, such as academic pressure and external controls. Cooperation, which had negative correlates only for boys, had some positive ones for both sexes.

By high school, both boys and girls had positive correlates for competition, and neither had negatives for cooperation. But boys lost the negative correlates for competition, whereas girls retained some. Boys had lost whatever earlier correlation they had had of personal worth with cooperation.

The same study found that the greatest difference between the sexes with respect to the correlates of competition and cooperation existed in grades 8-10, with girls markedly increasing their orientation toward cooperation during this period.

A mid-1980's study of independent school students in grades 9-12 found that boys valued competitiveness and aggressiveness twice as often as girls did, that twice as many boys as girls thought teachers valued competitiveness, and that half as many male teachers as female teachers said they did not value competitiveness in the classroom.

A 1986 summary of research on competition in the fields of education, business, science, journalism, and sports, with age groups ranging

from children to adults, indicates that there is no clear evidence that competition promotes achievement, productivity, or excellence.

Schools tend to reward competitiveness. In general, students work individually and compete with one another for grades, praise, and recognition. This competition leads to predictions of winners and losers. Among low performers, no amount of effort can make up for all they have missed out on; with such a small chance for success, they may give up, be apathetic, or be disruptive. High performers may not do their best because they know they are going to be near the top anyway.

Over the past decade, schools have been experimenting with cooperative learning methods, which have emerged as an alternative to the traditional competitive classroom. Students are assigned to heterogenous learning groups made up of boys and girls, high and low achievers, and children from differing backgrounds. They are individually accountable for learning jointly and are rewarded for their achievement as a group. Cooperative learning methods tend to increase academic achievement, student self-esteem, and "cross-group" liking between blacks and whites, Hispanics and Anglos, and boys and girls.

Caring

While females do not appear to be [illegible] more empathetic than males, they think they are, in accordance wit[illegible]arned gender stereotypes.

One series of studies in the 1980's showed the existence of two different "voices" on moral issues, which are considered to affect thought, feelings, and action. One voice is the morality of care, which says that moral problems arise from conflicting responsibilities that require thought about the situation at hand for their resolution. The other voice, the morality of justice, says that problems arise from competing rights and require formal, abstract resolution.

Both genders understand and use the moral perspectives of both justice and care, though the care ethic is generally more characteristic of women. Statistically significant gender differences in use of and preference for the two approaches have been found among middle class adolescents and others.

Achievement: confidence and anxiety

Boys and girls are taught to value achievement that comes from a job well done as measured against an internalized standard of excellence formed by pitting oneself against a task and one's previous achievement. In addition, boys are encouraged toward direct achievement through leadership and competition, whereas girls are pointed toward vicarious achievement through helping others.

To develop strongly preferred achievement styles early, as a result of different kinds of reinforcement, may be counterproductive for children. It can lead to reliance on limited approaches; other approaches drop out of the child's repertoire, and the familiar ones are used even when they are inappropriate.

Girls tend to trust their ability less, be less confident and more discouraged by failure, have lower self-esteem, and fear making mistakes more than boys. These differences do not apply to all or even most girls, however. They can be linked to differences in adults' expectations of and behavior toward girls and boys and can be changed by adult intervention.

Confidence can be increased by changing the gender stereotype of a task and by changing the student's attribution of failure to lack of effort, not to lack of ability. When an experimental task is seen as masculine, females expect to do less well than males. On tasks that are viewed as neutral or feminine, females expect to do at least as well as males. In general, but not always, girls are less likely than boys to attribute their success to ability but more likely to attribute their failure to it. Boys tend to blame their failures on external sources, such as the test or the evaluator.

Both sexes are more likely to attribute success to ability and skill if the person having the success is male. Girls' expectations are more likely to deterioriate when they run into difficulties with a task or increased pressure from evaluation. Changing the task or the evaluator does not always solve the problem. Boys are more likely than girls to choose difficult tasks and persist in them and, in no-choice situations, to meet difficulties and evaluative pressures with increased effort.

Students who attribute their failure to controllable factors, especially

to their own lack of effort, are more likely to work harder and to maintain high expectations for future success than those who believe failure is beyond their control, especially if they think failure is due to lack of ability.

Girls and boys get different messages about their ability to bring about desired results by their own exertions. Parents' expectations, which in some areas—notably mathematics—differ for boys and girls, also influence children's expectations of their own probable success. Girls' negative success orientation seems to be most affected by negative comment from adult female evaluators, whereas boys are most affected by male peer evaluators.

When it comes to anxiety, a 1981 review of research literature concluded that women "are more fearful, manifest greater anxiety and have less confidence in themselves and their performance on specific tasks." Female caution in testing situations has been documented across a wide range of ages. A 1984 study of graduate students at Stanford University found women trusting their own judgments less and having greater fear of making mistakes than men. However, psychologist Matina Horner's hypothesis—that women fear success more than men do—has not stood up under examination; the gender difference she claimed has not reappeared clearly or consistently in follow-up studies.

Several studies in the 1980's provided valuable information about confidence and anxiety among minority students. A study of students in grades 4-8 in Chicago showed that black students as a group did not attribute failure to lack of ability, or success to luck, significantly more often than Anglo or Hispanic students, nor did they score any differently on measures of test anxiety. Within the black group, however, girls did make these attributions significantly more than boys, and they showed higher levels of test anxiety. Hispanic students showed higher test anxiety than blacks and Anglos and a greater tendency to attribute failure to lack of ability. Those with high test anxiety in the Hispanic group tended to be female.

Another study was made of all fifth graders in the Champaign, Illinois, school system, which was 23 percent black at the time. It showed that, while white boys scored significantly higher on one of three general

self-esteem measures than white girls, no such difference showed up on any of the three measures between black girls and black boys.

Both black and white girls scored higher on test anxiety than the boys of either race.

Black boys showed a higher concern with social abilities and a lower orientation toward achievement than black girls or whites, and they showed a lower sense of control over what was going on in their lives than whites.

Black girls scored lower than whites on measures of achievement orientation and sense of control but significantly higher than white girls on ratings of their own academic abilities. There was no significant difference in this measure between black and white boys or between the sexes for each race.

These results have been interpreted to mean that esteem ratings among black boys may be based more on their interactions with their peers and less on their performance in the academic area, and that black girls' sense of their academic abilities may be based on using black boys, rather than white students, as their point of reference when estimating their own abilities.

A study of black and white adolescent boys showed that black boys' own aspirations correlated strongly with those their mothers had for them, and that the aspirations of white boys correlated with those of their fathers for them. The two groups of boys had comparable scores on degree of achievement orientation.

There is evidence that black high school girls are at a double disadvantage in mostly white schools. In one case, at least, they showed lower self-esteem and aspirations compared to boys in a school that was 90 percent white than they did in a school that was 70 per cent white. A partial explanation for the difference might be that black girls are judged for their appearance, and by white standards of beauty, whereas boys are more likely to be judged for their abilities.

4.

The Real World: Workplace and Family

Young women's career aspirations and employment patterns seem gradually to be converging with those of men. More women are spending more time in paid work, while the proportion of men who work and the time they spend working is diminishing. To a smaller extent, men's participation in the nurturing aspects of parenthood and in household work has also increased. Even so, stereotyped ideas about gender-appropriate occupations and behavior in and out of the home persist.

Women and men in the workplace

Although American women have always worked in and out of the home, their presence in the paid labor force began to increase rapidly during the second half of this century. In 1960, a third of all women over age sixteen were employed. By 1984 the total was over half, with more than three quarters of college-educated women between the ages of twenty-five and sixty-four in this group.

Half of all women and men who work continue to hold jobs traditionally thought appropriate to their gender. Despite obstacles, however, more and more women are entering predominantly male, and higher-paying, occupations. To a lesser degree, men are entering predominantly female occupations. The greater rewards of men's jobs, and men's demonstrated conservatism about gender roles, help to explain the difference.

Family obligations have a different and more significant impact on the job choices and work lives of women than men. Because of their continued primary responsibility for housework and child care, women find it harder than men do to combine family and employment. But men also are constrained in their job choices by their continued primary responsibility for financial support of the family. For this reason, and because for men success is measured so much in terms of their job, they feel under a great deal of pressure, both to take high-paying, prestigious jobs whether attracted to them or not, and to perform well in them.

Gender stereotyping in the workplace is an obstacle to individual self-fulfillment for women and men whose interests and aptitudes do not fit the stereotypes. Even if women do choose a traditionally female job because of their talent and desire for it, they are penalized because they gain less money, prestige, power, and advancement than men who choose traditionally male jobs. Men also receive fewer rewards for choosing nontraditional jobs. For male and female employees to work in jobs not traditional to their gender, however rewarding, creates varying degrees of tension for them, their employers, and their fellow workers of both sexes.

"Women's work" and "men's work"

Although gender differences in the workplace may be declining, they persist.

With individual exceptions, especially among managerial and professional women, it is the work patterns of married women, especially mothers, that are most unlike those of men in terms of full-time as opposed to part-time jobs, hours worked, and kinds of jobs held.

The biggest job-related gender difference is in the kinds of jobs held. The great majority of jobs are staffed overwhelmingly either by women or by men. About half of all employed women and men work in what are, in effect, sex-segregated occupations.

In addition to clustering in lower-paying occupations and the lower ranks within occupations and earning less than men, women also lag behind men in occupational status, upward mobility, and leadership recognition.

Gender outweighs race when it comes to income, for white women are paid less than black men. Minority women earn even less than white women, as a rule.

A large part of the gender difference in compensation comes from the lower pay, status, and possibilities for promotion in the female-dominated occupations, which about half of all women continue to enter.

Such factors as women's position at the lower levels of most occupations, their higher rate of work-life interruptions due to family responsibilities, the remaining gender gap in higher education, and hours worked account for part of the earning differential by gender within the same occupation. Analysis of several occupations where all factors could be held constant still showed a 5 to 10 percent gap in pay between women and men.

The child as parent to the jobholder

Occupational segregation is affected by differences in men's and women's lives before they enter the job market. Parents, teachers, and counselors treat boys and girls differently and have different expectations of them. The presence or absence of role models also has an effect, as do continued gender stereotyping in educational materials and gender differences in training for specific occupations.

Many people still believe, consciously or unconsciously, that woman's place is in the home. People still have assumptions about innate sex differences in ability and personality that supposedly suit women and men for different kinds of jobs. These ideas continue to affect decisions about applying for jobs, hiring, and offers and acceptances of promotion.

Stereotypical notions about gender-appropriate jobs develop in preadolescence. As they become older, girls increasingly view individual occupations as appropriate for either sex. At the same time, the range of options that girls consider is, from an early age, typically narrower than that of boys. Girls also tend more than boys to expect to enter occupations that are more sex-typed than they would like.

Although all early experiences are important, those in high school appear to be crucial. High school students' decisions about the kinds of jobs they want definitely influence the kinds of jobs they end up in as

adults. Teachers can have significant influence on students' career choices.

Girls are becoming more career conscious and, more than boys, less gender bound in choosing an occupation. A national study of high school students showed a dramatic increase in the proportion of girls aspiring to some of the better-paid, traditionally male-dominated occupations between 1972 and 1980. At the same time, the traditionally female occupations continued to draw considerably more heavily. Money also gained markedly in importance in choice of occupation, as did the influence of teachers. The most striking changes occurred in the professional and managerial categories.

The academic programs taken in college by 1980 high school graduates confirmed that they were trying to translate career aspirations into reality. The pattern of graduate training among women showed a marked increase in the proportion of women taking advanced degrees in male-dominated fields.

Nontraditional occupations

Despite the persistence of gender segregation in the labor force, significant change began, especially among younger workers, in the decade between 1970 and 1980.

Men became slightly more likely to work in a few heavily female occupations as stenographers, telephone operators, and elementary school teachers. At the same time, women formed a higher proportion in predominantly male occupations, working as executives and managers, attorneys, bank officials, computer programmers, and bus drivers. The rate of entry of women "crossing over" was higher than that of men.

Fellow workers' attitudes and actions can cause an inhospitable work environment for women who enter what have been traditionally "men's jobs" and interfere with their ability to learn and perform on the job, to the point of overt harassment. Men unused to working with women often do not know how to behave and therefore exclude or ignore them, or they emphasize the gender difference by singling women out. Men's attempts to include women by trying to make them "one of the boys," overprotecting or patronizing them, overemphasizing their being women, or saying they are unlike other women produce other negative effects.

Combining family and career remains very much more difficult for women than for men. Family responsibilities, and traditional family-oriented attitudes, can contribute to occupational gender segregation and act as a brake on advancement. Women, for instance, are less likely to accept a promotion if it means a move for the family. While many women in traditionally male, high-powered jobs successfully combine family and career, many others are not doing so well.

Being unmarried increases the possibility that a woman will work in a traditionally male occupation, and full-time workers are four times more likely to do so than part-time workers. Of married women, over half of whom are now in the labor force, almost a third work part time.

One of the most striking gender-related changes in the labor force is the influx of women into management and executive positions, where their presence has doubled in the past twenty years. Women, while far more accepted as executives and managers, are experiencing inequities in opportunity, compensation, and respect. Men consistently overestimate the gains women have made, compared to women's own estimates.

There is evidence that white, Asian American and Hispanic male managers are less sensitive than black male managers to problems of women and minorities on the job. While this sensitivity decreases with seniority among white men, it increases with seniority among black male managers.

Some of men's continued resistance to the equality of women in the workplace is due to the competition they represent. Men, especially white men, face new strains in the business world today. They form only about a third of the population but have traditionally made up 95 percent of corporate managers. Since the 1960's, they have had to compete with the two thirds of the population that is made up of women and minorities.

Many white men feel they have suffered from this competition. In a large-scale survey of corporate managers in 1980, at least half of the white male lower and middle managers believed that their opportunities had been hindered since by equal employment opportunity legislation. Almost half of whites, Hispanics, and Asian Americans, but less than a third of blacks, still subscribed to some stereotypical views of female managers—that most of them were too emotional to be competent, that

they used sex as an alibi for many difficulties they had on the job, and that they were not serious about professional careers. Among the women managers, a quarter of Hispanics and Native Americans but less than a fifth of whites or blacks, subscribed to any of these stereotypic views.

It is noteworthy that 38 percent of all managers in the study, male and female alike, believed that many wives do not like their husbands to work as equals with women or as subordinates to them. If this perception is accurate, women by their influence on husbands are contributing to the difficulties women face on the job.

In education, where the presence of women as role models has special importance, the move of women toward the higher ranks has been slow. And the higher the educational level and the more prestigious the institution, the slower the move.

When male and female faculty members holding doctoral degrees are matched in years of experience, academic discipline, and educational background, women still rank consistently lower than men. They are paid less than their male counterparts at every rank, across disciplines, and in all types of institutions, with discrepancies ranging from 5 to 18 percent.

Family and household: new conditions, new demands

Over the past generation, several trends with far-reaching consequences and educational implications have affected the family. The American family composed of an employed father, a homemaker-only mother, and two or more children that formed 60 percent of all households in 1955 had dwindled to 4 percent by 1985.

Among the major trends affecting the family in the last thirty years or so are later marriage, fewer children, a rapid increase in employed wives and mothers, divorce, and single living. At the same time, women's primary responsibility for household work and child care has not changed much.

Marriage as an institution continues to flourish. However, American women are spending fewer years of their lives in marriage, not only because of later marriages and a higher divorce rate, but also because they are living substantially longer.

Marriage patterns are also affected by the fact that, from middle adulthood on, more and more women are outliving men and by the cultural preference of both men and women for a match where the man is older and has the higher status in terms of education, employment, and income.

Dual-earner families

In the majority of families, both spouses are now employed outside the home. The experience of being employed and married, like the experience of being employed and a parent, continues to differ for wives and husbands.

Marital status and motherhood significantly affect women's employment patterns. The work force contains fewer wives than it does never-married and divorced women, fewer mothers with husband present than wives with husband present but no children, and fewer women with young children. But in all these categories the trend is toward greater participation in paid employment, and the changes have been dramatic.

Between 1950 and 1984, the proportion of married women in the labor force more than doubled, the proportion of mothers with children under eighteen more than tripled, and the proportion of mothers with children under the age of six increased almost fivefold.

While employed wives work at their jobs fewer hours than their husbands, on the average, they more than make up this difference by the time they spend on housework and child care.

A significant proportion of men continue to feel that it is up to the wife to do the housework whether she is employed or not. A dozen studies done between 1975 and 1983 concluded that the husbands of employed wives contributed little if any more to housework and child care than the husbands of full-time homemakers, that wives in both cases did a far larger share of work in the home, and that the division of labor in the home was gender-stereotyped. At the same time, there was some indication that women themselves wished to continue taking primary responsibility for work in the home. The more recent studies showed that husbands were beginning to spend more time on housework and child care.

Working wives contribute substantially to the economic support of

their families, bringing in almost a third of the total family income. Wives who work full time bring in far more than a third, and one out of ten of them brings in more than her husband.

Much has been written about the effect of wives' and mothers' employment on husbands and children, but with little clear-cut agreement. Research evidence reveals no consistent support for negative effects. Positive effects supported by the evidence are increased equity in decision making and less gender-stereotyped attitudes among the children of dual-earner families.

Divorce and its consequences

Divorce is no longer exceptional, but its costs, both financial and emotional, are not yet consistently or consciously expected or accepted. The impact of divorce is different for men and women. Under current conditions, it is more negative for women and boys than it is for men and girls.

In 1980, there was one divorce for every two marriages. The remarriage rate for women has declined, for they are less likely to remarry than divorced men. A high proportion of second marriages also ends in divorce.

The changed attitudes toward marriage have dramatic consequences for children. According to the census, of every 100 children born in 1983 only forty-one will live continuously in a two-parent family until age eighteen. Of the rest, twelve were born to an unmarried mother, forty to parents who will get divorced, five to parents who will separate, and two to parents who will be widowed before the child is eighteen.

As reported in 1986, 23 percent of all American families were single-parent families headed by the mother, and 3 percent were single-parent families headed by the father. Single parents (90 percent of whom are women) in divorced family households have significantly lower incomes, and their children have significantly more problems, than parents and children in intact families with otherwise similar characteristics.

A large-scale national study conducted in 1981-82 and 1983-84 confirmed earlier studies showing the harmful effects of divorce on children. Elementary school children who had lived for almost four years in a single-

parent family performed worse than those from similar but intact families on twenty-one out of twenty-seven measures of social competence and on eight out of nine measures of academic competence.

The study found marked gender differences in adjustment to divorce. Boys had significantly greater difficulties. They scored more poorly than boys from intact families and girls from single-parent families at each grade level (grades 1, 3, and 5) and worse the older they became. Girls from divorced families scored worse than girls from intact families in many of the criteria in grade 1 but showed only one difference by grade 5. The follow-up study, about six years after the divorce, found that significant differences continued for children of divorced families, including the greater difficulties of boys.

Among influences promoting good adjustment for children in divorced families were found to be positive and frequent contact with the noncustodial parent, in most cases the father, and employment outside the home of the mother. Good and frequent contact with the noncustodial parent was more important for boys than for girls in the older age group. A working mother correlated with better grades in spelling and conduct and fewer physical health problems for girls, and with better peer relationships but poor grades in conduct for boys.

Among school-related influences that helped boys and girls adjust to divorce were a high percentage of girls in the child's class and a traditional rather than an open classroom structure. Having more girls in class correlated with higher grades for both sexes in reading and math. Classroom structure correlated with higher reading scores and less inattention.

Teachers confirm the prevalence of children from divorced families and their problems in school. A 1986 readership poll of some 400 teachers around the country showed that an average of 41 percent of their students in the previous year had parents who were separated or divorced. The schoolwork of half of these students was affected; over 90 percent of the teachers said they had to give these children extra attention, and 80 percent said that a family life curriculum dealing with social problems would help.

Unmarried householders

Married couples, half of whom had children under age eighteen, formed only 59 percent of all households in 1984. A quarter of all households were occupied by single persons, about two thirds of them women. Twelve percent of all households were headed by husbandless women, over half of them with children under eighteen, and 2 percent by wifeless men, about half of whom had children.

Households made up of unmarried couples increased almost fourfold between 1970 and 1984, reaching almost 2 million by 1984. The biggest increase in this category was among people aged twenty-five to forty-four.

Not surprisingly, the rates of intercourse before marriage and illegitimate births rose during the same period.

Resources

The following readings are the most comprehensive, reliable, and immediately useful among the vast but variable and patchy coverage of gender issues in education. This selection is meant to serve the needs of the various constituencies in the school community and of those who are responsible for various aspects of school life and for the different academic disciplines. Entries are arranged topically rather than alphabetically.

Organizations, agencies, and programs that can help are listed in several chapters of Susan Klein, *Handbook for Achieving Sex Equity through Education* (see below).

Annotated gender and women's studies catalogues are available free from the publishers listed at the end of this chapter. They can help keep readers abreast of literature in the field.

Reference and interdisciplinary works

Klein, Susan S., ed. *Handbook for Achieving Sex Equity through Education.* Baltimore: The Johns Hopkins University Press, 1985.

State of the art compendium on the topic, covering research, recommendations, theory, and practice from early childhood to postsecondary education. Considers classroom and administrative strategies, school climate, testing, instructional materials, content areas, minorities, the nature of sex differences, and gender role development. Dense.

Dalton, Kathleen M. *A Portrait of a School: Coeducation at Andover.* Andover, Mass.: Phillips Academy, 1986.

A thorough, precise, and insightful case study dealing with both student and faculty views of coeducation in the classroom, in athletics, in the extracurricular

sphere, in dormitory life, and in school climate, and with "the effects of the equity earthquake." The ample statistics for Andover are frequently set in the context of research studies done elsewhere.

Chapman, Anne. *Feminist Resources for Schools and Colleges: A Guide to Curricular Materials.* 3rd ed. New York: The Feminist Press, 1986.

Annotated bibliography for high school and college teachers and students of print and audiovisual resources published since 1975. Focuses on subject matter of the major academic disciplines. Annotations describe, evaluate, and give substantive information and suggestions for use.

Platt, Carolyn, and A. Porter O'Neill, comps. *Feminist Periodicals: A Current Listing of Contents.* Quarterly. Available free from Women's Studies Librarian-at-Large, University of Wisconsin System, 112-A Memorial Library, 728 State St., Madison WI 53706.

Briefly annotated listing of some fifty major feminist journals, with tables of contents of current issues reproduced. Good for keeping abreast with new research and concerns.

Abrams, Eileen. *A Curriculum Guide to Women's Studies for the Middle School, Grades 5-9.* Old Westbury, N.Y.: The Feminist Press, 1981.

Twenty lesson plans, including reproduceable activity supplements for student use, with a practical introduction and resource list. Oriented to social studies, U.S. history, and reading courses.

Guidelines for Selecting Bias-Free Textbooks and Storybooks. No date. Council on Interracial Books for Children, 1841 Broadway, New York NY 11023.

Specific, detailed suggestions on how to detect bias and what to do about it. Early childhood emphasis, general applicability.

Hall, Roberta M., and Bernice R. Sandler. "The Classroom Climate: A Chilly One for Women?" 1982. Project on the Status and Education of Women, Association of American Colleges, 1818 R St. NW, Washington DC 20009.

Research and recommendations. Postsecondary, but applicable elsewhere.

Jenkins, Mercilee M., Judith M. Gappa, and Janice Pearce. *Removing Bias: Guidelines for Student-Faculty Communication.* 1983. Speech Communication Association, 5105 Backlick Rd., Suite E, Annandale VA 22003.

Ways in which faculty members may inadvertently promote gender stereotyping, with suggestions about what can be done to counteract it. Postsecondary, but applicable elsewhere.

Langland, Elizabeth, and Walter Gove, eds. *A Feminist Perspective in the Academy: The Difference It Makes.* Chicago: University of Chicago Press, 1981.

Nine essays by well-known scholars reviewing the new scholarship on women and its actual and potential impact on individual disciplines in the humanities and social sciences. Authoritative but nontechnical; gives detail on how and where changes can/should be made in teaching and learning.

McIntosh, Peggy. "Interactive Phases of Curricular Revision." Working Paper No. 124. 1983. Wellesley, Mass.: Wellesley College Center for Research on Women.

Outline of typical stages in personal and institutional change when perspectives and material from the new scholarship on women are brought into a traditional curriculum.

Jaggar, Alison M., and Paula Rothenberg Struhl. *Feminist Frameworks.* 2nd ed. New York: McGraw-Hill, 1984.

Combination of telling readings and clear-headed analysis that illuminates conservative, liberal, Marxist, radical, and socialist feminist theories and contemporary problems in the areas of work, family, and sexuality to which they are applied.

Ruth, Sheila. *Issues in Feminism: A First Course in Women's Studies.* Boston: Houghton Mifflin, 1980.

Lucid, passionate, and analytical combination of readings and explanatory narrative. The clearest and most thorough one-volume survey of women's studies. Could be assigned to students in grade 10 and up.

Hull, Gloria, Bell Scott, and Barbara Smith. *All the Women Are White, All the Blacks Are Men, But Some of Us Are Brave: Black Women's Studies.* Old Westbury, N.Y.: The Feminist Press, 1982.

Substantive information and pedagogical suggestions; guidelines for raising consciousness about racism; bibliographic essays on black women in history, literature, and music. Twenty detailed course syllabuses.

Current Male Role Syllabi Packet. Available from Sam Femiano, 22 East St., Northampton MA 01060, for $10.00.

Seventy pages, fifteen courses, including English, history, psychology, sociology, and black and women's studies. Updated regularly.

Men's Studies Directory. Available from Walter Williams, Program for the Study of Women and Men in Society, Taper Hall 331-M, University of Southern California, Los Angeles CA 90089.

Publications, research, and teaching by men's studies scholars.

Academic subject areas

Arts

Harris, Anne Sutherland, and Linda Nochlin. *Women Artists, 1550-1950*. Los Angeles County Museum of Art/New York: Knopf, 1977.

Two hundred and four high-quality plates, with thirty-two in color, illustrating the works of eighty-four artists in painting, drawing, and graphic arts. Historical background, biographical information, critical discussion of works. Scholarly but not stodgy.

Hedges, Elaine, and Ingrid Wendt. *In Her Own Image: Women Working in the Arts*. Old Westbury, N.Y.: The Feminist Press, 1980.

Relation of women's art in many genres—from poetry to painting, sculpture to needlework, ceramics to dance—to the conditions of their life. High school student text; teacher's guide available.

Rubinstein, Charlotte Streifer. *American Women Artists from Early Indian Times to the Present*. New York: Avon, 1982.

Relation of women's art to their social and cultural circumstances in discussions of period, style, and genre. Biographical information; description and evaluation of works, including excerpts by the artists and their critics; significant representation of women of color. Two hundred and thirty-five crisp black and white and forty-nine color illustrations. High school seniors could tackle the reading.

Neuls-Bates, Carol, ed. *Women in Music: An Anthology of Source Readings from the Middle Ages to the Present*. New York: Harper & Row, 1982.

Letters, diaries, autobiographies, interviews, reviews of both notable and lesser-known composers, performers, patrons, and educators. Most selections accessible to competent high school readers.

English

Miller, Casey, and Kate Swift. *The Handbook of Nonsexist Writing*. 2nd ed. New York: Harper & Row, 1988.

Useful, sensible, and sensitive. The standard book on nonsexist writing recommended by *The Chicago Manual of Style*.

Nilsen, Alleen Pace. *Changing Words in a Changing World: Pop! Goes the Language*. 1979. Education Development Center, 55 Chapel St., Newton MA 02160.

Guide to student analysis of language as a social phenomenon and its impact on gender roles and self-image. High school text; ideas adaptable for younger students. Teacher's guide available.

Sadker, Myra, David Sadker, and Joyce Kaser. *The Communication Gender Gap*. No date. The Mid-Atlantic Center for Sex Equity. The American University School of Education, Washington, D.C.

Booklet for high school students and adults with twenty-item quiz, whose answers give substantial information about how women and men communicate with each other; exercises in assessing communication patterns among adults and in classrooms; suggestions on how to end the gender gap.

Register, Cheri. "Literary Criticism" (review essay). *Signs*, winter 1980.

The question of a female aesthetic, female mythos, mother-daughter focus, and the feminist canon.

Gilbert, Sandra M., and Susan Gubar. *The Norton Anthology of Literature by Women: The Tradition in English*. New York: W. W. Norton, 1985.

Over 150 authors from every English-speaking country, ranging from Bradstreet and Wheatley to Dickinson and Wharton, Woolf, and Walker, spanning the period from the Middle Ages to today and the gamut of genres: poetry, drama, journals, letters, short fiction, essays, and three complete novels. Each period is introduced by a historical essay, each author by a biographical and critical headnote.

Ostriker, Alicia Suskin. *Stealing the Language: The Emergence of Women's Poetry in America*. Boston: Beacon Press, 1986.

A lucid, scholarly, and passionate examination of the works of a wide range of contemporary American women poets that sets their work into a literary, historical, and political context and contributes to the reader's personal appreciation of the poetry discussed. Teacher resource.

Pratt, Annis. *Archetypal Patterns in Women's Fiction.* Bloomington, Ind.: Indiana University Press, 1983.

An analysis of the works of over 300 British and American novelists, major and minor, including working class and minority women, offering insights that could be applied to whatever fiction is being taught.

Bankier, Joanna, and Deirdre Lashgari, eds. *Women Poets of the World.* New York: Macmillan, 1983.

Almost 250 poets represented, mostly by only one or two poems. Ten introductions to the language groupings discuss historical and sociological contexts as well as prosody and imagery. Broad coverage of minority women in America. Most of the content readable by high school students, some by those younger.

Mathematics, computers, science

Lockheed, Marlaine E., et al. *Sex and Ethnic Differences in Middle School Mathematics, Science, and Computer Science: What Do We Know?* Princeton, N.J.: Educational Testing Service, 1985.

Comprehensive review of research, giving established differences and similarities in participation and performance, describing possible courses, and summarizing programs designed to increase participation and/or performance by girls and minorities; grades 4-8.

Sanders, Jo Shuchat, and Antonia Stone. *The Neuter Computer: Computers for Boys and Girls.* 1986. Available from Women's Action Alliance, 370 Lexington Ave., Room 603, New York NY 10017.

Ninety-six successful field-tested strategies for increasing girls' interest in and use of computers; fifty-six activities; annotated organization, agency, and bibliography listings.

Keller, Evelyn Fox. *Reflections on Gender and Science.* New Haven: Yale University Press, 1985.

A challenging and wide-ranging exploration by a mathematical biophysicist of why objectivity and reason are characterized as male, subjectivity and feeling as female, and how this affects the goals and methods of scientific inquiry.

Keller, Evelyn Fox. "Feminism and Science." *Signs,* spring 1982.

Review of information on women in science as a profession, bias in the choice of problems to be investigated and funded, in the design and interpretation of experiments, and in scientific language. For teachers.

Social studies

Lerner, Gerda. *Teaching Women's History.* 1981. American Historical Association, 400 A St. SE, Washington DC 20003.

Indispensable practical manual on issues, methods, topical approaches, sources; significant coverage of racial and ethnic minorities.

Bridenthal, Renate, and Claudia Koonz, eds. *Becoming Visible: Women in European History.* Boston: Houghton Mifflin, 1977.

Twenty chronologically organized chapters, with specialists in each period covering economic, political, social, and cultural history. Written for a college audience, the book is still the single best background reading for any teacher of this subject matter at the precollege level.

Fox-Genovese, Elizabeth, and Susan Mosher Stuard, eds. *Restoring Women to History: Materials from Western Civilization,* vol. I. 1983. Organization of American Historians, 112 N. Bryan St., Bloomington IN 47401.

Fifteen curriculum units from prehistory through the end of the eighteenth century, suggesting concepts and subject matter for lectures, reading assignments for students, topics for discussion, audiovisual aids, and bibliography for instructors. Thought-provoking and dense; designed for college use. Good for high school teachers with some background in women's history.

Pleck, Elizabeth, et al. *Restoring Women to History: Materials for U.S. History,* vol. II. 1984. Organization of American Historians, 112 N. Bryan St., Bloomington IN 47401.

Covers Reconstruction to 1970's. Format and approach same as volume above.

Chapman, Anne, ed. *Approaches to Women's History.* 1979. American Historical Association, 400 A St. SE, Washington DC 20003.

Seven interdisciplinary units designed for high school use but adaptable to junior high school with substantial content on U.S. women's history. Fifty documents for student reading and analysis; lesson plans, activities, pedagogical suggestions adaptable to various periods and to history of countries other than U.S.

Bingham, Marjorie Wall, and Susan Hill Gross. Women in World Area Studies (series). St. Louis Park, Minn.: Glenhurst Publications. 1980-1986.

Narrative texts for ninth and tenth graders, about 120 pages each, with teacher's guide and sound filmstrip. Volumes include women in ancient Greece

and Rome, the Middle Ages and Renaissance, the Soviet Union, China, India, Africa, Latin America, Israel, Japan, and Islamic countries.

Stone, Lawrence. "Family History in the 1980's." *Journal of Interdisciplinary History*, vol. 12, no. 1 (1981).

Stimulating overview of the field, including issues of demography, household structure, economics, lineage and kin, values, emotions, and sexuality. For teachers.

Swerdlow, Amy, Renate Bridenthal, Joan Kelly, and Phyllis Vine. *Families in Flux*. Rev. ed. New York: The Feminist Press, 1987.

Historical development of family forms, review and analysis of contemporary variations in the U.S., utopian and other alternatives to traditional family structure. High school student text; teacher's guide available.

Filene, Peter Gabriel. *Him/Her/Self: Sex Roles in Modern America*. 2nd ed. Baltimore: The Johns Hopkins University Press, 1986.

Interdisciplinary historical approach to changing definitions of masculinity and femininity since the late nineteenth century within political, economic, demographic, and intellectual contexts. Readable by able high school seniors.

Richmond-Abbot, Marie. *Masculine and Feminine: Sex Roles over the Life-Cycle*. Reading, Mass.: Addison-Wesley, 1983.

Clear discussion of biological, environmental, ideological, and economic roots of gender inequality; socialization by parents, toys, the media, and schools; adolescence; the family; men and women at work and in politics. Experiences of different races and classes covered in significant detail. Written for college students; includes essay and discussion questions and exercises.

Sadker, David. *Being a Man: A Unit of Instructional Activities on Male Role Stereotyping*. Washington, D.C.: U.S. Government Printing Office, 1977.

Concise background information on the nature and costs of masculine stereotyping, detailed lesson plans, discussion questions, and reproduceable materials for students. Designed for junior high school use.

Nonacademic areas of school life

Athletics

University of Michigan School of Education, Center for Sex Equity in Schools. "Women and Sports." *Title IX Line*, vol. 4, no. 4 (1984). Center for Sex Equi-

ty in Schools, 1046 School of Education Building, University of Michigan, Ann Arbor MI 48109.

Checklist on sex equity in physical education in schools; forty-two-item bibliography including biographies of women athletes, "new games" (cooperative and noncompetitive options). No overlap with *Equal Play* (see next entry).

Women's Action Alliance. "Sex Equity in Sport and Physical Education." *Equal Play*, vol. 5, no. 2 (1985). Women's Action Alliance, 370 Lexington Ave., New York NY 10017.

Fifty-seven-item resource list covering publications on sex equity, women and girls of color, the disabled, audiovisuals, programs, centers, and services.

School climate

Gilligan, Carol. *In a Different Voice: Psychological Theory and Women's Development.* Cambridge, Mass.: Harvard University Press, 1982.

Research-based examination of gender-related (rather than gender-specific) differences in moral development. Suggests that, while for adolescent boys the problem is how to sever ties in order to become independent, for girls it is how to be both autonomous and interdependent simultaneously.

Belenky, Mary Field, et al. *Women's Ways of Knowing: The Development of Self, Voice, and Mind.* New York: Basic Books, 1986.

Research-based examination of five perspectives from which women view reality and draw conclusions about truth, knowledge, and authority; how these are related to their self-concept; and how schools promote and hinder women's development.

University of Michigan School of Education, Center for Sex Equity in Schools. *Tune in to Your Rights . . . A Guide for Teenagers about Turning off Sexual Harassment.* 1985. Center for Sex Equity in Schools, 1046 School of Education Building, University of Michigan, Ann Arbor MI 48109.

An informal, effective booklet written for teenagers of both sexes giving case histories, practical suggestions, and solid information.

Publishers' catalogues of materials on women and gender

Avon Books, 105 Madison Ave., New York NY 10016

Beacon Press, 25 Beacon St., Boston MA 02108

Columbia University Press, 136 S. Broadway, Irvington NY 10533

Cornell University Press, P.O. Box 250, Ithaca NY 04851

Doubleday and Co., Inc., 501 Franklin Ave., Garden City NY 11530

The Feminist Press, at the City University of New York, 311 E. 94th St., New York NY 10128

Garland Publishing, Inc., 136 Madison Ave., New York NY 10016

Glenhurst Publications, Inc., Central Community Center, 6300 Walker St., St. Louis Park MN 55416

Greenwood Press, Box 5007, Westport CT 06881

G. K. Hall Reference Books, 70 Lincoln St., Boston MA 02111

Harper & Row Publishers, Inc., 10 E. 53rd St., New York NY 10022

Humanities Press, 171 First Ave., Atlantic Highlands NJ 07716-1289

Indiana University Press, 10th & Morton Sts., Bloomington IN 47405

International Labor Office, Washington Branch, 1750 New York Ave. NW, Washington DC 20006

The Johns Hopkins University Press, 701 W. 40th St., Baltimore MD 21218

Longwood Publishing Group, Inc., 51 Washington St., Dover NH 03820

Merrimack Publishers' Circle, Box 827, Salem NH 03079

National Women's History Project, P.O. Box 3176, Santa Rosa CA 95402

New Society Publishers, Life Center Association, Inc., 4722 Baltimore Ave., Philadelphia PA 19143

Northeastern University Press, P.O. Box 250, Ithaca NY 14851

Oxford University Press, 200 Madison Ave., New York NY 10016

Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford NY 10523

Praeger Publications, 1 Madison Ave., New York NY 10010-3603

Rowman & Littlefield, 81 Adams Dr., Totowa NJ 07512

Routledge, 29 W. 35th St., New York NY 10001-2291

Rutgers University Press, 109 Church St., New Brunswick NJ 08901

Scarecrow Press, 52 Liberty St., Box 4167, Metuchen NJ 08840

St. Martin's Press, Inc., Reference and Scholarly Books Division, 175 Fifth Ave., New York NY 10010

TABS, Aids for Equal Education, 438 Fourth St., Brooklyn NY 11215

Temple University Press, Broad & Oxford Sts., Philadelphia PA 19122

University of Chicago Press, 5801 Ellis Ave., Chicago IL 60637

University of Illinois Press, 54 E. Gregory Dr., Champaign IL 61820

University of Massachusetts Press, Box 429, Amherst MA 01004

University of Tennessee Press, 293 Communications Bldg., Knoxville TN 37996-0325

University of Toronto Press, 340 Nagel Dr., Cheektowaga NY 14225

Viking/Penguin, Inc., 40 West 23rd St., New York NY 10010

WEEA Publishing Center, Education Development Center, Inc., 55 Chapel St., Newton MA 02160

Wellesley College Center for Research on Women, Wellesley MA 02181

Audiovisual distributors' catalogues of materials on women and gender

American Audio Prose Library, 915 E. Broadway, Columbia MO 65201

Cinema Guild, 1697 Broadway, New York NY 10019

Films Incorporated, 733 Green Bay Rd., Wilmette IL 60091

Ladyslipper, Inc., P.O. Box 3130, Durham NC 27705

New Day, Films about Women and Men, P.O. Box 315, Franklin NJ 07417

University of Illinois Film Center, 1325 S. Oak St., Champaign IL 61820